

Appendix table 5-45.

Incidence of multiple corporate authorship of U.S. scientific and technical articles, by field: 1988, 1994, and 1999

Years	All Sectors				Academic				Industry				Non-profit				State and local government			
	Total articles	Total coauthored	U.S.- coauthored	Internationally coauthored	Total articles	Total coauthored	U.S.- coauthored	Internationally coauthored												
	Number	Percent of total articles			Number	Percent of total articles			Number	Percent of total articles			Number	Percent of total articles			Number	Percent of total articles		
Psychology																				
1988	7,090	37.7	32.9	4.8	6,577	39.4	34.6	4.8	224	64.7	59.4	5.4	451	70.7	66.1	4.7	157	74.5	72.0	2.5
1994	6,189	41.8	34.2	7.6	5,731	43.3	35.8	7.6	159	68.6	59.7	8.8	431	76.3	68.4	7.9	154	63.6	56.5	7.1
1999	5,822	47.8	37.2	10.6	5,494	49.1	38.6	10.6	172	72.7	65.1	7.6	404	77.5	70.5	6.9	102	78.4	71.6	6.9
Social sciences																				
1988	8,592	30.5	23.7	6.8	7,448	33.0	26.1	6.9	336	41.4	39.6	1.8	648	47.8	39.2	8.6	74	58.1	56.8	1.4
1994	8,102	33.6	24.1	9.5	7,054	36.0	26.5	9.5	228	49.1	46.9	2.2	722	54.6	40.7	13.9	88	63.6	58.0	5.7
1999	7,322	35.1	24.1	11.1	6,548	36.3	25.7	10.7	210	55.7	46.2	9.5	611	61.7	43.9	17.8	60	71.7	70.0	1.7
Health and professional fields																				
1988	10,778	34.3	30.9	3.4	8,993	38.2	34.5	3.7	1,063	38.0	36.8	1.2	727	52.8	49.8	3.0	292	56.5	55.1	1.4
1994	10,185	36.6	31.6	5.0	8,695	39.9	34.6	5.4	834	43.9	40.6	3.2	705	56.0	52.3	3.7	271	58.7	56.5	2.2
1999	8,959	40.0	33.5	6.5	7,878	42.6	35.9	6.7	659	54.8	49.9	4.9	712	65.9	61.1	4.8	226	77.4	73.0	4.4

See explanatory notes, if any, and SOURCE at end of table

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Incidence of multiple corporate authorship of U.S. scientific and technical articles, by field: 1988, 1994, and 1999

Years	Federal Government				University-administered FFRDCs				Industry-administered FFRDCs				Nonprofit-administered FFRDCs			
	Total articles	Total coauthored	U.S.- coauthored	Internationally coauthored	Total articles	Total coauthored	U.S.- coauthored	Internationally coauthored	Total articles	Total coauthored	U.S.- coauthored	Internationally coauthored	Total articles	Total coauthored	U.S.- coauthored	Internationally coauthored
	Number	Percent of total articles			Number	Percent of total articles			Number	Percent of total articles			Number	Percent of total articles		
	Total science and engineering															
1988	21,893	67.6	57.7	9.9	5,204	63.2	44.4	18.8	1,722	57.5	44.9	12.5	531	46.1	39.9	6.2
1994	22,932	72.9	57.5	15.4	5,813	72.3	43.8	28.5	1,881	71.2	51.5	19.7	673	61.2	45.6	15.6
1999	20,958	78.5	57.0	21.4	6,376	79.5	41.3	38.2	1,908	78.6	51.1	27.5	615	60.3	44.1	16.3
	Physics															
1988	1,436	59.1	48.1	10.9	2,639	63.7	42.0	21.7	646	59.1	40.2	18.9	144	39.6	32.6	6.9
1994	1,919	66.9	48.9	18.0	2,944	71.6	38.6	33.1	670	74.6	46.6	28.1	182	50.0	31.9	18.1
1999	1,766	74.3	48.2	26.2	3,116	78.8	35.7	43.0	689	79.7	46.2	33.5	215	52.6	33.5	19.1
	Chemistry															
1988	995	48.4	38.4	10.1	454	65.0	49.3	15.6	194	52.6	44.3	8.2	68	26.5	19.1	7.4
1994	1,051	57.3	43.5	13.8	423	73.5	51.8	21.7	229	68.1	58.5	9.6	65	43.1	30.8	12.3
1999	813	65.9	46.1	19.8	609	80.0	52.9	27.1	248	72.2	57.3	14.9	134	50.7	37.3	13.4
	Earth and space sciences															
1988	1,781	62.8	49.1	13.8	818	68.6	46.7	21.9	72	59.7	52.8	6.9	45	73.3	64.4	8.9
1994	2,326	76.9	52.4	24.5	1,093	77.4	46.2	31.2	83	63.9	56.6	7.2	66	81.8	65.2	16.7
1999	2,547	81.7	51.0	30.6	1,423	83.7	41.6	42.1	87	78.2	60.9	17.2	76	84.2	65.8	18.4
	Mathematics															
1988	126	52.4	44.4	7.9	55	63.6	56.4	7.3	25	56.0	44.0	12.0	7	57.1	42.9	14.3
1994	78	64.1	52.6	11.5	39	69.2	48.7	20.5	22	45.5	45.5	0.0	5	40.0	40.0	0.0
1999	85	54.1	41.2	12.9	43	74.4	39.5	34.9	13	69.2	53.8	15.4	0	na	na	na
	Clinical medicine															
1988	8,942	79.9	70.6	9.3	186	72.6	62.4	10.2	163	70.6	56.4	41.1	35	82.9	74.3	8.6
1994	8,477	82.9	68.6	14.3	210	81.0	64.3	16.7	177	85.9	59.9	26.0	70	72.9	65.7	7.1
1999	7,805	86.1	66.0	20.1	177	90.4	63.3	27.1	202	86.6	51.5	35.1	33	90.9	72.7	18.2
	Biomedical research															
1988	3,749	67.9	54.2	13.7	371	60.6	44.7	15.9	199	65.8	56.8	9.0	49	38.8	34.7	4.1
1994	4,094	74.6	55.1	19.6	375	79.2	54.9	24.3	295	75.6	53.9	21.7	60	75.0	50.0	25.0
1999	3,718	79.0	53.6	25.4	408	85.5	53.7	31.9	297	82.5	53.9	28.6	52	69.2	59.6	9.6
	Biology															
1988	995	48.4	38.4	10.1	454	65.0	49.3	15.6	194	52.6	44.3	8.2	68	26.5	19.1	7.4
1994	1,051	57.3	43.5	13.8	423	73.5	51.8	21.7	229	68.1	58.5	9.6	65	43.1	30.8	12.3
1999	813	65.9	46.1	19.8	609	80.0	52.9	27.1	248	72.2	57.3	14.9	134	50.7	37.3	13.4
	Engineering and technology															
1988	1,020	54.7	48.4	6.3	578	51.9	40.5	11.4	336	47.0	38.7	8.3	100	51.0	44.0	7.0
1994	1,142	63.0	53.2	9.8	611	59.2	43.0	16.2	347	57.9	46.4	11.5	136	61.0	41.2	19.9
1999	1,006	68.7	56.1	12.6	547	64.4	41.3	23.0	308	75.0	50.3	24.7	85	54.1	41.2	12.9

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	Number	Percent of total articles			Number	Percent of total articles			Number	Percent of total articles			Number	Percent of total articles		
Psychology																
1988	325	71.1	66.8	4.3	2	100.0	100.0	0.0	0	na	na	na	8	62.5	62.5	0.0
1994	277	71.5	64.6	6.9	8	75.0	62.5	12.5	0	na	na	na	5	80.0	80.0	0.0
1999	262	81.7	71.8	9.9	0	na	na	na	1	100.0	100.0	0.0	1	0.0	0.0	0.0
Social sciences																
1988	545	44.0	39.3	4.8	42	47.6	38.1	9.5	2	50.0	50.0	0.0	29	31.0	31.0	0.0
1994	537	43.0	37.1	6.0	34	44.1	32.4	11.8	4	75.0	75.0	0.0	36	58.3	44.4	13.9
1999	369	52.6	43.9	8.7	11	81.8	36.4	45.5	10	60.0	50.0	10.0	4	25.0	25.0	0.0
Health and professional fields																
1988	491	49.5	46.6	2.9	12	75.0	75.0	0.0	1	0.0	0.0	0.0	31	41.9	41.9	0.0
1994	467	54.8	51.0	3.9	6	66.7	66.7	0.0	0	na	na	na	29	69.0	69.0	0.0
1999	384	67.7	59.9	7.8	6	50.0	50.0	0.0	4	75.0	75.0	0.0	6	83.3	83.3	0.0

FFRDCs = Federally Funded Research and Development Centers. na = not applicable.

NOTES: Coauthorships are based on authors' corporate addresses. Sectoral tables do not add to totals because articles are on a whole count basis, where each sector receives a whole count for a multi-authored publications. The whole counting of publications, where each sector and/or country receives an entire count in multiauthored papers, results in higher counts compared to the fractional basis of counting found in other tables.

SOURCES: Institute for Scientific Information, Science Citation Index and Social Science Citation Index; CHI Research, Inc., Science Indicators database; and National Science Foundation.